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SUMMARY

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Senegal

CATTLE-PLAGUE PROPHYLAXIS

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CATTLE-PLAGUE PROPHYLAXIS

By

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Medical prophylaxis of cattle-plague makes use both of passive and active immunisation processes.

Passive immunisation is applied by means of anti-plague serum, the use of which has been practically stopped.

Active immunisation uses vaccines which can be classified in two groups:

Inactivated vaccines

Host-produced attenuated virus vaccines

Inactivated vaccines are prepared from the pulp of organs of infected animals and treated with an antiseptic, generally formol.

This type of vaccine is undeniably effective and innocuous. It produces no undesirable reactions even in the most sensitive races. Disadvantages claimed are the slow development of immunity and its short duration, once developed, and especially the high cost.

Among virus vaccines, the cattle-plague virus vaccines produced from goat or rabbit organs are the most widely used.

The goat type vaccine is prepared either from goat or cattle organs. The virulent organs are ground and lyophilised.

This vaccine should be reserved for zebus, excluding humpless (taurine) cattle and zebu-cattle crossings. In young animals vaccinated for the first time it produces strong reactions, and a certain percentage of mortality among animals in poor condition. On the other hand, this vaccine confers early and lasting immunity. Its cost is extremely low.

The rabbit-produced cattle-plague virus vaccine is prepared from organs of rabbits infected with Nakamura III strain, ground and lyophilised. This vaccine also confers early, good and lasting immunity. With very few exceptions, it can be used for inoculating hump-less cattle.

Its cost is not very high, but its preparation depends on the facilities for rabbit breeding. This vaccine is very sensitive to heat, and must under all circumstances be stored at a low temperature.

A new vaccine is at present being tested; this is a vaccine obtained by a modification of the cattle-plague virus in living cell cultures.

This vaccine should have the advantages of being cheap, effective, and perfectly innocuous. Tests will be necessary, however, before its use on a large scale can be recommended.

Selection of the vaccine to be used depends on the facilities for its production, method of raising and sensitivity of the cattle to be immunised.

Many factors must be considered to prevent post-vaccination troubles and cessation of immunity.

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